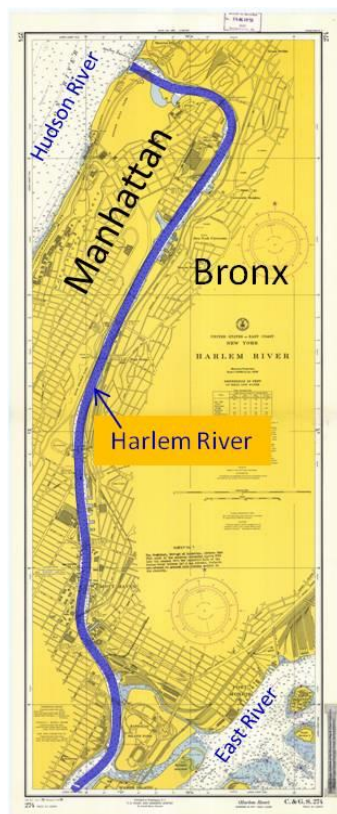


Urban Waters Initiative – BRONX & HARLEM RIVERS

Over the past century, the Harlem River watershed has become highly urbanized with 90 percent of the waterway constrained by infrastructure, which has limited access for recreational use. Bound by New York (Manhattan) and Bronx Counties, the Harlem River is a tidal strait between urbanized estuaries to the north (Hudson River) and south (East River). Direct inputs include the more than 50 combined sewer overflows (CSOs) that discharge runoff from impervious surfaces and untreated sewage to the Harlem River during precipitation events.

Historic uses of the Harlem River included swimming, boating, and fishing, as well as horseback riding and hiking through adjacent parklands. As urban sprawl



continued and the local economy grew, the natural creeks and parklands along the river were filled and replaced by industry. The Harlem River was also widened and reshaped to facilitate commercial traffic and barges. The subsequent decline in the local economy over the past several decades has resulted in a number of abandoned buildings and vacant paved areas along the waterfront. The legacy of former industrialization has left the communities on both sides of the river isolated from the Harlem River, and a majority of residents

have lost (or are too young to have ever known) a sense of its true value.

A recent decision by N.Y.C. Environmental Protection and the N.Y.S. Department of Environmental

Conservation (NYSDEC) has paved the way for a multi-billion dollar effort aimed at improving infrastructure to divert some of the rainwater from reaching CSOs in an attempt to lessen the load of untreated sewage to the local waterways. These projects, along with participation from the community, are crucial first steps towards restoring the Harlem River to the valuable public resource it once was.



Urban Waters Initiative

In an effort to revitalize the Nation's polluted and underutilized urban waterways, a joint program known as the Urban Waters Initiative (UWI) was developed. The White House Office of Urban Affairs, together with the U.S. Environmental Protection Agency (EPA), launched the nation-wide pilot project in 2011 to provide local communities with an opportunity to invest and participate in restoring their local waterways. The Guiding Principles of the UWI state that the work of Federal partners will:

- Promote clean urban waters
- Reconnect people to their waterways
- Conserve water
- Use waterways to promote economic development
- Encourage community participation
- Be open and honest while engaging communities
- Focus on measuring results

Community groups, volunteers, and state and local governments are all teaming up with a number of Federal agencies to develop and implement changes needed to bring about an improvement in water quality, better access to the Harlem River, “greener” facilities and parks along the riverfront, and a sense of community that will stimulate environmental awareness and economic growth.

The U.S. Geological Survey (USGS) will work with other Federal partners and the community to support the UWI by identifying, compiling, and reviewing all available water-quality data related to the Harlem River. Datasets from local, state, and Federal agencies, as well as area institutions, will be assembled to assist the local community better understand the past and present state of the Harlem River. Involvement in the UWI aligns with the USGS mission to “provide reliable information that will protect natural resources and enhance the quality of life.” Results from the review will be available in the form of a fact sheet and as a data layer for GIS mapping programs.

Water Quality

The Harlem River watershed consists of mainly paved lots that divert most of the precipitation across soiled roadways and into the Harlem River. Furthermore, CSO discharge of untreated sewage during precipitation events contributes a myriad of biological and chemical pollutants that adversely impact aquatic life and enjoyment by residents. Tidal fluctuations cause variations in water quality throughout the Harlem River as pollutant loads transported by the Hudson River and East River carry the effects of regional land-use and effluent from sewage treatment facilities.

As a result, the Harlem River has been classified by the NYSDEC as unsafe for primary contact (in other words, swimming). Restoring conditions to a useable state for the local community will be a challenging

task that requires a sound understanding of the problems affecting Harlem River water quality. Assembling past water-quality data on the Harlem River is imperative in developing a baseline to monitor improvement by the applied technologies and “green” infrastructure. Projects aimed at increasing accessibility to the Harlem River waterfront have been increasing over the past few years; however, poor water quality is one of the major issues that need to be addressed.

The USGS will take the lead in the assessment of water-quality data collected for the NY/NJ Harbor Estuary Program and by a number of other institutions. Conventional water-quality parameters such as dissolved oxygen, temperature, chlorophyll, turbidity, salinity, and fecal coliform and enterococcus levels are good indicators of the overall health of an estuary. This information will be consolidated with a focus on data relevant to recreational uses of the Harlem River, which will lead to greater understanding of priority issues facing the river.

The USGS will inform and educate local residents, project leaders, and all other stakeholders working to revitalize the Harlem River waterfront through community outreach. Community participation is key to the success of this project and is guided by the EPA’s *Community-based Watershed Management* of the *National Estuary Program*.

Federal Cooperators

U.S. Department of Agriculture
U.S. Army Corps of Engineers
Economic Development Administration
National Oceanic and Atmospheric Administration
Corporation for National and Community Service
U.S. Environmental Protection Agency
U.S. Department of Health and Human Services
U.S. Department of Housing and Urban Development
U.S. Department of the Interior

For more information

Stephen Terracciano
U.S. Geological Survey
New York Water Science Center
2045 Route 112, Building 4
Coram, NY 11727
(631) 736-0783
saterrac@usgs.gov

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